

WHAT IS CLAIMED IS:

1. A method for forming conducting wire in semiconductor device, said method comprising steps of:
 - providing a substrate;
 - forming a first dielectric layer on the substrate;
 - forming a via in the first dielectric layer, and filling the via with metal;
 - forming a conductive layer on the first dielectric layer including the via;
 - forming a second dielectric layer on the conductive layer;
 - removing portions of the second dielectric layer to form openings;
 - filling the openings with metal to form metal regions;
 - removing the second dielectric layer; and
 - using the metal regions as a mask to remove undesired portions of the conductive layer by etching to form conducting wires.
2. The method as claimed in Claim 1, wherein the etching selectivity ratio for the conductive layer to the metal region is higher than 3:1.
3. The method as claimed in Claim 2, wherein the conductive layer mainly comprises aluminum, while the metal region mainly comprises tungsten.
4. A method for forming conducting wire and contact opening in semiconductor device, said method comprising steps of:
 - providing a substrate;
 - forming a first dielectric layer on the substrate;
 - forming a via in the first dielectric layer, and filling the via with metal;
 - forming a conductive layer on the first dielectric layer including the via;
 - forming a second dielectric layer on the conductive layer;
 - removing portions of the second dielectric layer to form openings;
 - filling the openings with metal to form metal regions;
 - removing the second dielectric layer;
 - using the metal regions as a mask to remove undesired portions of the conductive layer by etching to form conducting wires;
 - filling recesses between the conducting wires with a filling layer, and performing planarization to expose the metal regions;
 - forming a third dielectric layer on the filling layer and the metal regions;
 - forming a photoresist layer with a predetermined pattern on the third dielectric layer;
 - removing a predetermined portion of the third dielectric layer to form a contact opening; and
 - removing the photoresist layer.

5. The method as claimed in Claim 4, wherein the etching selectivity ratio for the conductive layer to the metal region is higher than 3:1.
6. The method as claimed in Claim 5, wherein the conductive layer mainly comprises aluminum, while the metal region mainly comprises tungsten.